ABSTRACT

AIM : to determine the incidence of MS in patients with Acute STEMI according to the new "obesity-centric" (ethnic specific) IDF definition and to compare the severity and outcome of acute STEMI patients with and without Metabolic Syndrome .

STUDY DESIGN : Prospective Study

METHOD : The study was undertaken on patients admitted with ST elevation myocardial infarction in the Coimbatore Medical College Hospital. The study was done with detailed history taking and clinical examination of patients to diagnose the acute ST elevation MI using ECG criteria and Metabolic Syndrome using IDF criteria . The severity of heart disease was assessed by heart failure (Killips class) , rhythm abnormalities (ECG) and left ventricular ejection fraction (Echo) for both patients with and without the Metabolic Syndrome . The correlation between the number of components of metabolic syndrome and the severity of the disease i.e., acute ST elevation MI was also assessed.

RESULTS : Incidence of MS was 44% of total 100 STEMI patients. 56.52% females were found to have MS where as in males , it was 40.25 % , showing the higher prevalence of MS in female patients. Majority of the total patients fall in the age group of 51 – 60 (also in males) and among female patients

clustering occurred in 61 – 70 years. Most of the MS patients 52.20% had four components and 31.80% patients had three components and 16% had five components. The fasting blood sugar and/or known diabetic followed by the lipid abnormalities were the predominant predictors of the Metabolic Syndrome among all parameters . The incidence of heart failure in MS group was more than twice than that of the other group. The more the number of components of MS , the more severe the heart failure and the more the reduction in LVEF. The mortality rate in MS group was 11.36 % and in the Non MS group , it was 3.57 %.

CONCLUSION : Both the Metabolic Syndrome itself and its components are predictors of cardiovascular disease, in specific STEMI . There is high risk of heart failure and LV dysfunction and in hospital case fatality among the patients with Metabolic Syndrome in ST elevation MI. The risk and severity of cardiovascular disease increases as the number of components increases.

KEYWORDS-Metabolic syndrome, central obesity, Diabetes Mellitus ,Hypertension,Heart Failure, dyslipidemia.